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22 UNITED STATES DISTRICT COURT  
23 CENTRAL DISTRICT OF CALIFORNIA  
24 SOUTHERN DIVISION

25 POLARIS POWERLED  
26 TECHNOLOGIES, LLC,

27 Plaintiff,

28 v.

VIZIO, INC.,

Defendant.

Case No. 8:18-cv-01571-JVS (DFMx)

**VIZIO INC.'S STATEMENT OF  
UNCONTROVERTED FACTS AND  
CONCLUSIONS OF LAW IN SUPPORT  
OF ITS MOTION FOR SUMMARY  
JUDGMENT**

**Hearing Date: June 29, 2020 at 1:30 PM**

**Courtroom: 10C**

**Judge: Hon. James V. Selna**

Pursuant to Central District of California Local Rule 56-1, Defendant VIZIO, Inc. submits this Statement of Uncontroverted Facts and Conclusions of Law in support of its Motion for Summary Judgment.

**STATEMENT OF UNCONTROVERTED FACTS**

NO.	UNCONTROVERTED FACT	SUPPORT
1	Polaris asserts claims 1-7 of U.S. Patent No. 7,239,087 (“the ’087 Patent”) against VIZIO.	Summers Decl. Ex. B ¶ 2.
2	Claim 1 of the ’087 Patent is an independent claim.	Dkt. 1-1 at Claim 1.
3	Claim 1 of the ’087 Patent recites: 1. A multi-load time sharing driver comprising: a current source configured to provide a regulated current; a network of semiconductor switches coupled in series; and a plurality of light sources in a backlight system, each light source associated with a semiconductor switch, wherein the semiconductor switch selectively opens to allow the associated light source to conduct the regulated current.	Dkt. 1-1 at Claim 1.
4	Claims 2-7 of the ’087 Patent depend from claim 1.	Dkt. 1-1 at Claims 2-7.
5	Polaris accuses over two hundred VIZIO televisions of infringing the ’087 Patent,	Summers Decl. Ex. B ¶ 2.

1		which are made by TPV, AmTran, Foxconn,	
2		or Wistron.	
3	6	A complete list of accused VIZIO products	Summers Decl. Ex. B ¶ 2.
4		appears in paragraph 2 of Polaris's	
5		infringement expert's report.	
6	7	Polaris's infringement expert Mr. Carlson	Summers Decl. Ex. B ¶¶
7		opines that the VIZIO M50-E1 television is	90, 97, 105, 116;
8		representative of all VIZIO products	Summers Decl. Ex. C at 2.
9		manufactured by TPV.	
10	8	Polaris's infringement expert Mr. Carlson	Summers Decl. Ex. D at 2,
11		opines that the VIZIO M557-G0 television is	14 & 21.
12		representative of all VIZIO products	
13		manufactured by AmTran, except the E470i-	
14		A0/A0B, E500d-A0, E500i-A0/A0B, E420d-	
15		A0/A0B, E420i-A0/A0B, and VF551XVT.	
16	9	The AmTran-manufactured VIZIO E470i-	Summers Decl. Ex. D at 2,
17		A0/A0B, E500d-A0, E500i-A0/A0B, E420d-	14 & 21.
18		A0/A0B, E420i-A0/A0B, and VF551XVT	
19		utilize a slightly different architecture than	
20		the M557-G0 but their relevant operation and	
21		structure is unchanged.	
22	10	Polaris's infringement expert Mr. Carlson	Summers Decl. Ex. E at 2,
23		opines that the VIZIO F70-F3 television is	15 & 21.
24		representative of all VIZIO products	
25		manufactured by Foxconn, except the	
26		M601d-A3, M701d-A3, M801d-A3, and	
27		M801i-A3.	
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1	11	The Foxconn-manufactured VIZIO M601d-A3, M701d-A3, M801d-A3, and M801i-A3	Summers Decl. Ex. E at 2,
2		utilize a slightly different architecture than	15 & 21.
3		the F70-F3 but their relevant operation and	
4		structure is unchanged.	
5			
6	12	Polaris's infringement expert Mr. Carlson	Summers Decl. Ex. F at 2,
7		opines that the VIZIO E40-C2 television is	13-14, 20-21.
8		representative of all VIZIO products	
9		manufactured by Wistron, except the E551i-	
10		A2.	
11	13	The Wistron-manufactured VIZIO E551i-A2	Summers Decl. Ex. F at 2,
12		utilizes a slightly different architecture than	13-14, 20-21.
13		the E40-C2 but the relevant operation and	
14		structure is unchanged.	
15	14	Polaris's infringement expert Mr. Carlson	Summers Decl. Ex. B ¶¶
16		does not identify any material differences	102-105 & Summers
17		between the accused VIZIO products that	Decl. Ex. C at 9-10 (TPV
18		include the AS3824 LED driver and any	M50-E1 includes AS3824
19		other product for purposes of whether the	LED driver); Summers
20		limitation "a network of semiconductor	Decl. Ex. D at 13
21		switches coupled in series" reads on the	(AmTran M557-G0
22		accused products.	includes AS3824 LED
23			driver), 15 (for subset of
24			AmTran products,
25			"[w]hile circuitry is
26			different than the familiar
27			AS3824 LED driver, the
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		functionality is the same.”); Summers Decl. Ex. E at 12-13 (Foxconn E70-F3 includes AS3824 LED driver), 15 (for subset of Foxconn products that use field-programmable gate array instead of MOSFET, “the relevant operation and structure is unchanged”), 16 (“This implementation uses different circuitry (FPGA and op amps) rather than the more common AMS LED driver, but the functional results are the same.”); Summers Decl. Ex. F at 12-13 (Wistron E40-C2 includes AS3823 LED driver, which uses MOSFETs to control the LED strings), 13-14 (for Wistron E551i-A2, “A single Wistron product utilize a slightly different
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		architecture, though the relevant operation and structure is unchanged.”); Gershowitz Decl. ¶ 55.
15	Polaris’s infringement expert Mr. Carlson does not identify any material differences between the accused VIZIO products that include the AS3824 LED driver and any other product for purposes of whether the limitation “wherein the semiconductor switch selectively opens to allow the associated light source to conduct the regulated current” reads on the accused products.	Summers Decl. Ex. B ¶¶ 110-117 & Summers Decl. Ex. C at 12-16 (TPV M50-E1 includes AS3824 LED driver); Summers Decl. Ex. D at 17-21 (AmTran M557-G0 includes AS3824 LED driver), 21-22 (for subset of AmTran products, “[w]hile circuitry is different than the familiar AS3824 LED driver, the functionality is the same.”); Summers Decl. Ex. E at 16-21 (Foxconn E70-F3 includes AS3824 LED driver), 21 (for subset of Foxconn products that use FPGA instead of LED driver integrated circuit, MOSFETs only conduct

1		current when closed like
2		with the AS3824);
3		Summers Decl. Ex. F at
4		14-20 (Wistron E40-C2
5		includes AS3823 LED
6		driver, which uses
7		MOSFETs that only
8		conduct current when
9		closed), 20 (for Wistron
10		product with a “slightly
11		different architecture,”
12		“While circuitry is
13		different than the familiar
14		AS3824 LED driver, the
15		functionality is the
16		same”).
17	16	Summers Decl. Ex. B ¶¶
18	Polaris’s expert, Mr. Carlson, opines in his	110-111; Summers Decl.
19	infringement report that the MOSFETs or	Ex. C at 16-17; Summers
20	bipolar transistors that control the LED	Decl. Ex. D at 17-25;
21	strings in the backlight of the accused	Summers Decl. Ex. E at
22	products are the “semiconductor switches”	16-21; Summers Decl. Ex.
23	“associated with” the LED strings in the	F at 14-21.
24	17	Gershowitz Decl. ¶¶ 52-
25	In all of the accused products, the MOSFETs	55, 65, 73, 83, 88, 113-
26	or bipolar junction transistors that Mr.	120; Dkt. 75 at 1 (“Indeed,
27	Carlson identifies as the “semiconductor	VIZIO points at certain
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1		switches” “associated with” LED strings are	parallel switches in its
2		arranged in parallel.	televisions that Polaris
3			never claimed are coupled
4			in series.”).
5	18	Parallel circuits have multiple current paths	Gershowitz Decl. ¶ 54,
6		that divide current between them.	115.
7	19	Series circuits have only one current path.	Gershowitz Decl. ¶¶ 37,
8			54, 115; Summers Decl.
9			Ex. N at VIZIO_0149709
10			& VIZIO_0149712; Dkt.
11			75-17 at 5.
12	20	To the extent a switch in the power supply is	Summers Decl. Ex. B
13		considered as part of a “network” with the	¶¶ 102-103.
14		MOSFETs or bipolar junction transistors that	
15		Mr. Carlson identifies as the “semiconductor	
16		switches” “associated with” LED strings, Mr.	
17		Carlson has characterized the circuit as a	
18		“series-parallel” circuit.	
19	21	Mr. Carlson states in his report that:	Summers Decl. Ex. B
20			¶ 102.
21		“A component in a circuit can be coupled ‘in	
22		series’ with other components that are	
23		themselves coupled in parallel. This is	
24		referred to as a ‘series-parallel’ circuit.”	
25	22	In all of the accused products, no current is	Gershowitz Decl. ¶¶ 53-
26		conducted to an LED string when the	55, 134-136.
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1		associated MOSFET or bipolar junction	
2		transistor is open.	
3	23	The only claim limitation in Claim 1 of the	Summers Decl. Ex. B
4		'087 Patent that Polaris asserts is infringed	¶¶ 121-23; Summers Decl.
5		under the doctrine of equivalents is, “a	Ex. C at 16-17; Summers
6		plurality of light sources in a backlight	Decl. Ex. D at 24-25;
7		system, each light source associated with a	Summers Decl. Ex. E at
8		semiconductor switch, wherein the	21; Summers Decl. Ex. F
9		semiconductor switch selectively opens to	at 20-21.
10		allow the associated light source to conduct	
11		the regulated current.”	
12	24	Polaris’s infringement expert, Mr. Carlson,	Summers Decl. Ex. B
13		opines that, given that “light sources can only	¶ 121; Summers Decl. Ex.
14		conduct current when and if the	C at 17; Summers Decl.
15		semiconductor switch is opened,” “[t]he	Ex. D at 24-25; Summers
16		Accused Products perform the function in	Decl. Ex. F at 20-21.
17		substantially the same way as the	
18		semiconductor switches in the '087 Patent,	
19		which use PWM signals to control (e.g.,	
20		actuate) the switches.”	
21	25	Polaris’s infringement expert, Mr. Carlson,	Summers Decl. Ex. B ¶
22		opines that “For example, the Accused	117, 121; Summers Decl.
23		Products send time varying signals (e.g.,	Ex. C at 17; Summers
24		PWM signals) to the switches independently,	Decl. Ex. D at 24-25;
25		causing the switches to open and close at a	Summers Decl. Ex. F at
26		fast rate.”	20-21.

**CONCLUSIONS OF LAW**

<b>NO.</b>	<b>CONCLUSION OF LAW</b>
1	VIZIO's accused televisions do not literally infringe claims 1-7 of the
2	'087 patent because they do not satisfy the limitation "a network of
3	semiconductor switches coupled in series"; the accused switches
4	associated with the relevant LED strings are not coupled in series.
5	
6	
7	2 To the extent Polaris includes one or more switches associated with the
8	power supply as part of its infringement allegations, such switches are not
9	properly considered as part of the "network of semiconductor switches
10	coupled in series."
11	
12	3 Even if the one or more switches associated with the power supply are
13	considered part of the "network of semiconductor switches coupled in
14	series," VIZIO's accused televisions do not literally infringe claims 1-7 of
15	the '087 patent because they do not include the limitation "a network of
16	semiconductor switches coupled in series"; the accused switches
17	associated with the relevant LED strings are not coupled in series.
18	
19	4 To the extent Polaris includes one or more switches associated with the
20	power supply and only one of the LED switches associated with the LED
21	strings, VIZIO's accused televisions do not literally infringe claims 1-7 of
22	the '087 patent because the claim requires "a plurality of light sources in a
23	backlight system" where "each light source [is] associated with a
24	semiconductor switch," and there thus must be multiple light sources ("a
25	plurality") with multiple associated switches "coupled in series," not just
26	one light source (i.e., string of LEDs) with an associated switch further
27	coupled to a switch associated with the power supply.
28	
	5 VIZIO's accused televisions do not literally infringe claims 1-7 of the
	'087 patent because they do not include the limitation "wherein the

1		semiconductor switch selectively opens to allow the associated light
2		source to conduct the regulated current”; when the accused semiconductor
3		switches open, they do not “allow the associated light source to conduct
4		regulated current.”
5	6	VIZIO’s accused televisions do not infringe claims 1-7 of the ’087 patent
6		because they do not include the limitation “wherein the semiconductor
7		switch selectively opens to allow the associated light source to conduct
8		the regulated current” under the doctrine of equivalents; that would vitiate
9		the limitation “selectively opens” and the doctrine of equivalents cannot
10		be used to capture the opposite of a claim limitation.

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12  
13 DATED: May 22, 2020

Respectfully submitted,

14  
15 By /s/ Richard W. Erwine  
16 /s/ Richard W. Erwine

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